

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering X-ray radiation. In solid-state receivers and monitors, the CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. Keep high voltage at rated value, NO HIGHER. Excessive high voltage may cause X-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, many electrical and mechanical components have safety related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check inner board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

TEST JIG HOOKUP				
Function	Chek-A-Color Adapter No.	PC Board Plug No.	Pin	Color
CRT	B239	KX	1	Red
Yoke	D4137		3	Blue
Yoke Setting	YP3		4	Yellow
Comments	Focus Tap		5	Green

The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by Howard W. Sams & Company as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to Howard W. Sams & Company by the manufacturers of the specific type of replacement part listed.

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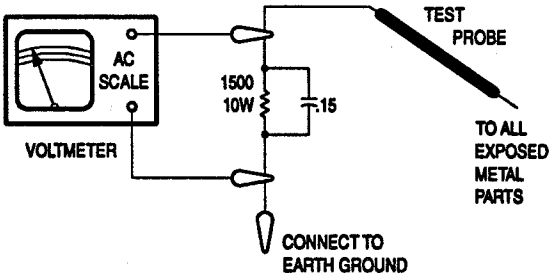
SAFETY CHECKS – FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



HIGH VOLTAGE SHUTDOWN TEST

Apply 120VAC, turn the receiver on, and set all customer controls for normal operation. Measure the voltage at TP7. Voltage should measure between 14.5V and 21.0V. If voltage exceeds this range the circuit must be repaired. Momentarily connect a jumper between TP7 and the cathode of D411. The receiver should lose raster and sound. If receiver does not lose raster and sound, the shutdown circuit should be repaired. To resume normal operation, remove AC power and wait 30 seconds, then turn the receiver on.



95PF02897



PHOTOFACT.® Technical Service Data

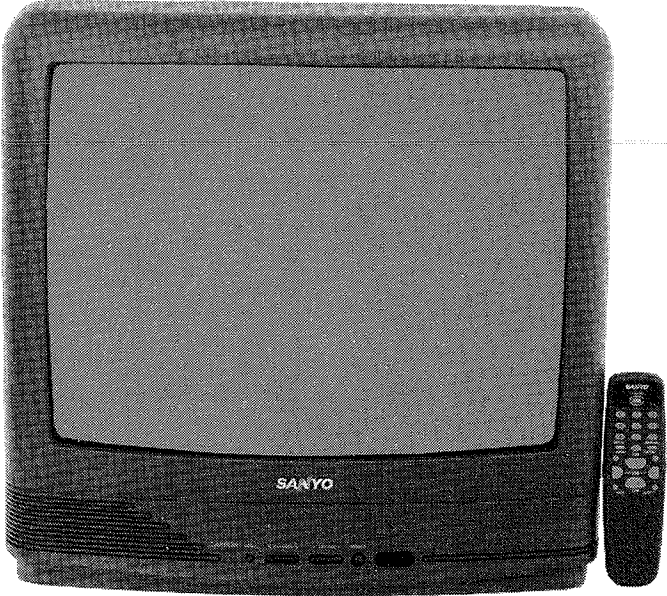
SET 3584

MODEL AVM-1905 (CHASSIS G6A-19050)

SANYO

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SANYO
Model AVM-1905 (Chassis G6A-19050)



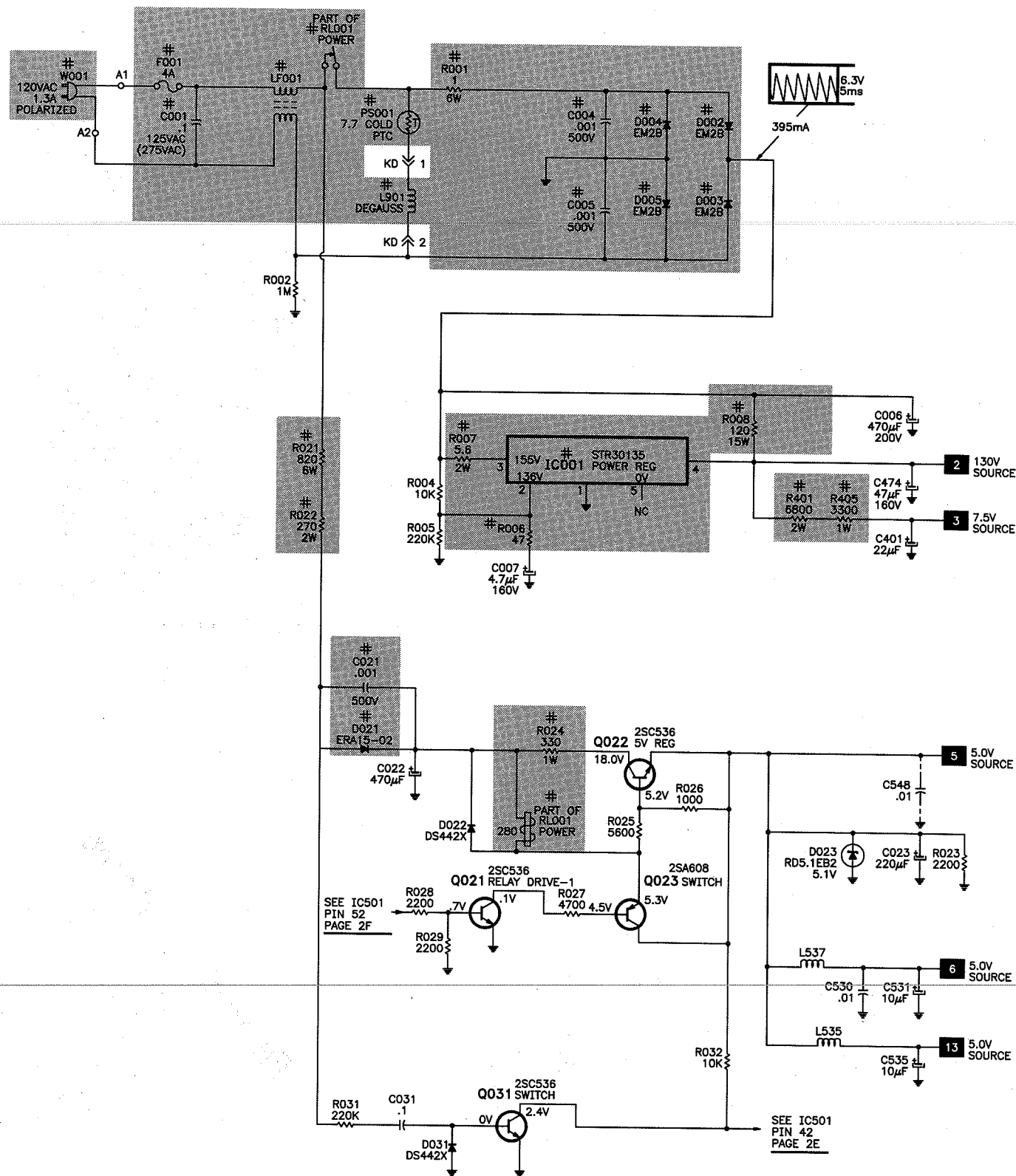
Essential coverage
for servicing a television receiver...

- Schematics
- Component locations
- Parts list



HOWARD W. SAMS & COMPANY
DECEMBER 1995 SET 3584

POWER SUPPLY SCHEMATIC



A PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE®**
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SCHEMATIC NOTES

- # For SAFETY use only equivalent replacement part, see parts list.
- ✖ Circuitry not used in some versions.
- Circuitry used in some versions.
- ⏏ Ground
- ⏏ Chassis ground
- ▽ Common tie point
- △ Taken from common tie point
- 3 Schematic CIRCUITACE®: Voltage source tie point.
- A — Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless noted otherwise.

Waveforms taken with triggered scope and colorbar signal.

Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.

Supply voltages maintained as seen at input.

Voltages measured with digital meter and a 1000 μ V RF signal, with colorbar pattern, applied to antenna terminal.

Controls adjusted for normal operation.

Capacitors are 50 volts or less, 5% or greater unless noted.

Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.

Resistors are 1/2W or less, 5% or greater unless noted.

Value in () used in some versions.

Measurements with switching as shown, unless noted.

Rated voltage shown on zener diodes.

TUNER INFORMATION

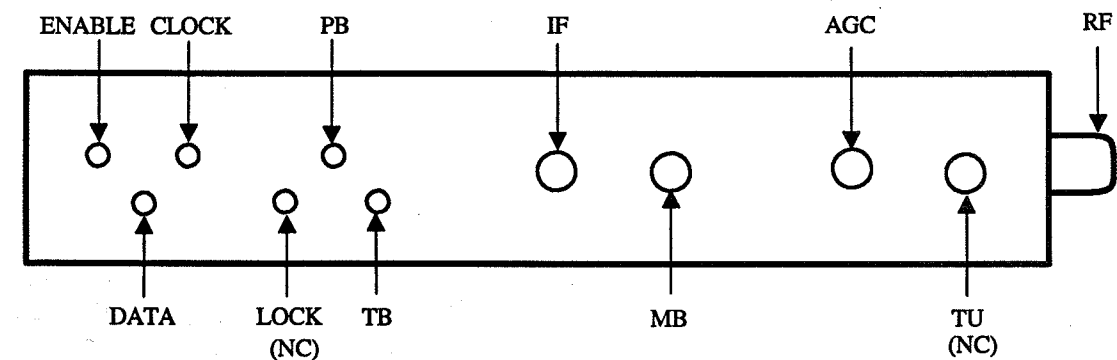
TUNER VOLTAGE CHART

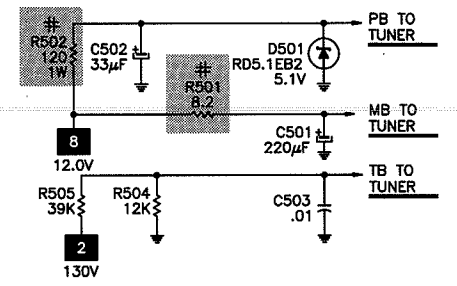
Pin	VHF Low Band	VHF High Band	UHF Band
TU(NC)	1.4V	4.4V	6.6V
AGC	5.6V	5.2V	4.9V
MB	12.0V	12.0V	12.0V
IF	0V	0V	0V
TB	20.5V	21.6V	22.4V
PB	5.1V	5.1V	5.1V
LOCK(NC)	.1V	.1V	.1V

Pin	VHF Low Band	VHF High Band	UHF Band
CLOCK	0V	0V	0V
DATA	0V	0V	0V
ENABLE	.1V	.1V	.1V

NOTE: VHF Low Band voltages taken on channel 2.
VHF High Band voltages taken on channel 7.
UHF Band voltages taken on channel 14.

TUNER TERMINAL GUIDE

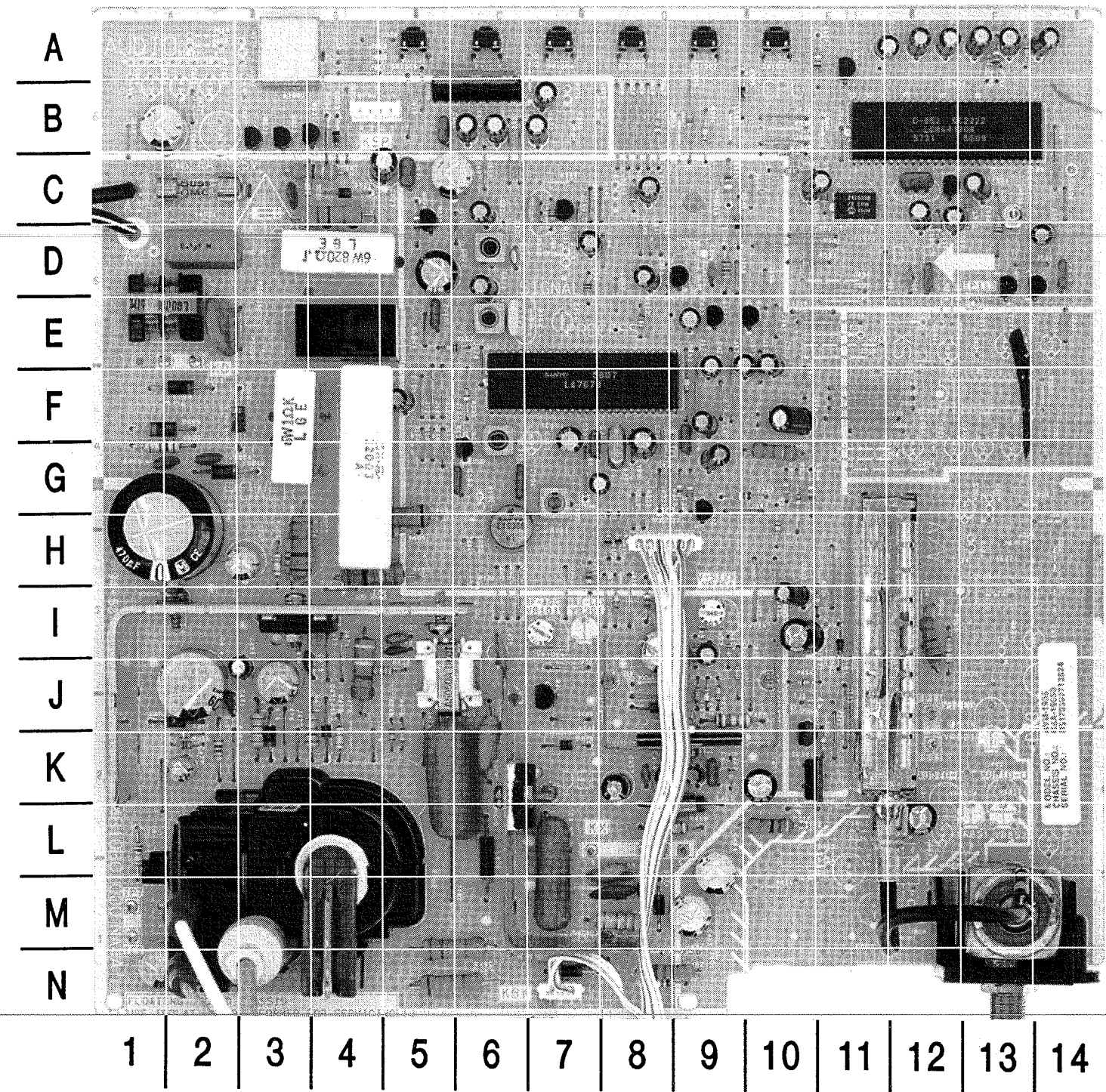




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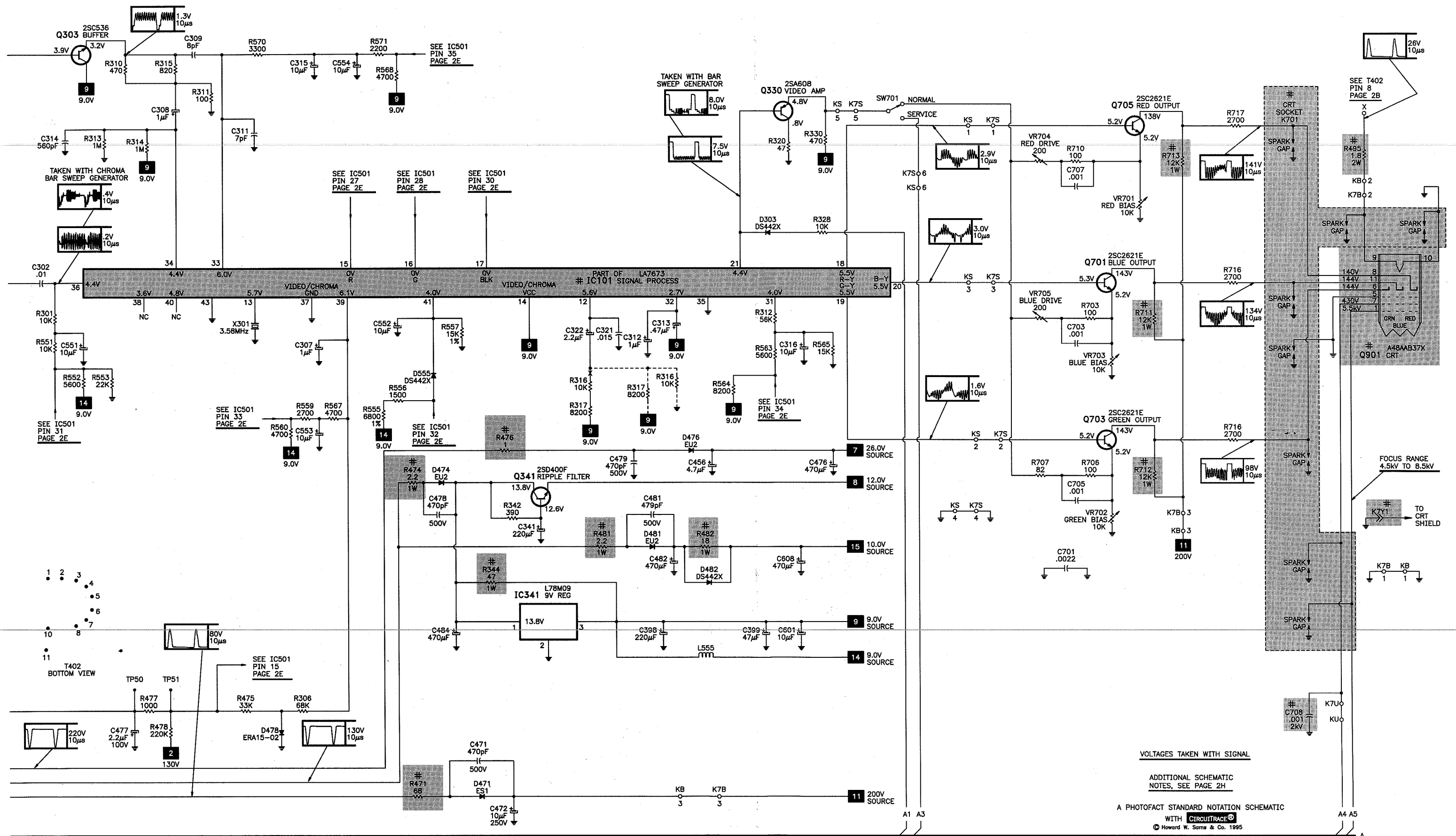
MAIN BOARD - TOP VIEW



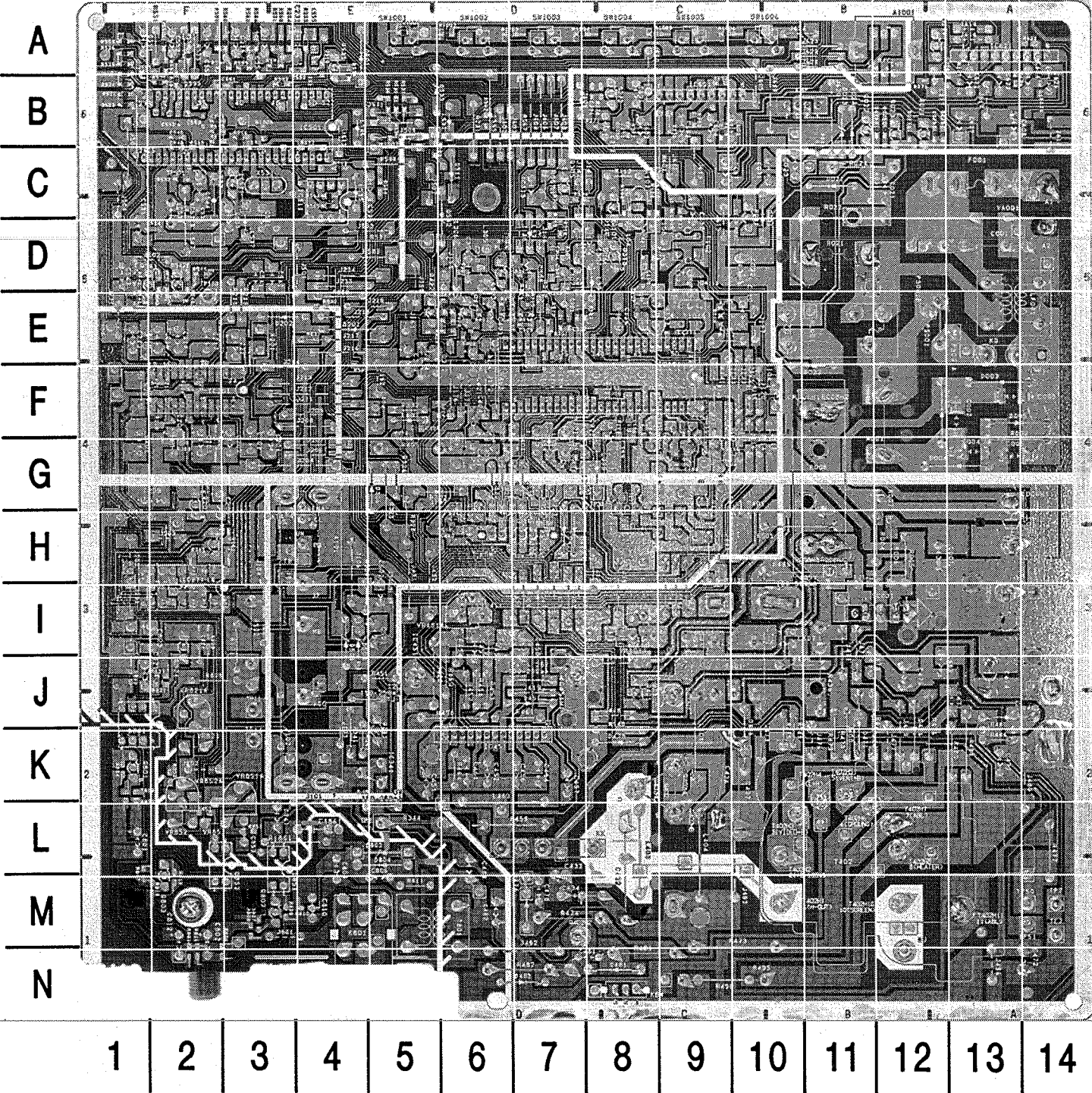
A HOWARD W. SAMS **GridTrace™** PHOTO

MAIN BOARD - TOP VIEW, GRIDTRACE LOCATION GUIDE

A101	H-11	C501	I-10	L301	D-7	R453	J-9
A1001	A-3	C502	I-10	L306	D-9	R454	I-9
C001	D-2	C511	C-13	L401	K-6	R456	J-9
C004	G-2	C521	D-14	L403	L-7	R457	I-9
C005	G-2	C531	C-12	L404	L-6	R458	J-9
C006	H-2	C535	C-11	L463	L-9	R459	L-9
C007	H-3	C541	D-12	L532	C-13	R460	J-9
C021	C-3	C542	D-12	L535	C-11	R463	F-9
C022	D-5	C543	D-14	L537	D-12	R464	K-9
C023	C-5	C544	C-12	L547	D-13	R471	J-4
C031	C-5	C551	A-14	L555	B-9	R473	N-6
C104	G-6	C552	A-13	LF001	E-1	R474	M-8
C106	F-5	C553	A-13	PS001	E-2	R475	K-5
C108	D-6	C554	A-12	Q021	B-3	R476	K-3
C110	E-5	C601	B-7	Q022	B-4	R477	L-1
C113	D-6	C602	B-7	Q023	B-3	R478	K-4
C152	G-6	C603	B-6	Q031	C-5	R481	N-7
C231	A-12	C604	B-6	Q101	C-7	R482	N-8
C232	C-6	C606	B-5	Q117	G-6	R483	K-2
C306	D-9	C607	C-6	Q303	D-9	R485	K-2
C307	D-7	C608	B-1	Q330	G-9	R486	K-2
C308	D-8	D002	F-3	Q341	K-10	R495	N-5
C312	E-10	D003	F-2	Q401	J-7	R501	I-12
C313	E-10	D004	G-2	Q402	K-6	R502	I-12
C315	C-8	D005	F-2	Q421	E-9	R504	I-11
C316	A-12	D021	C-4	Q422	E-10	R505	H-5
C321	G-7	D022	E-4	Q535	A-11	R549	K-5
C322	G-8	D023	B-4	Q541	D-14	R551	A-13
C341	L-12	D031	C-5	Q542	D-13	R555	A-13
C398	F-8	D303	G-10	R001	F-3	R557	C-8
C399	F-7	D306	G-10	R002	G-2	R567	B-8
C401	G-9	D411	H-8	R004	H-3	R581	D-10
C403	E-9	D412	H-8	R005	H-3	R586	C-10
C404	F-9	D436	K-5	R006	H-3	R1007	C-10
C406	F-9	D451	J-8	R007	H-3	RL001	E-4
C407	I-5	D471	K-4	R008	G-4	SW1001	A-10
C409	I-5	D474	M-8	R021	D-4	SW1002	A-9
C414	F-10	D476	K-3	R022	C-4	SW1003	A-8
C421	E-9	D478	K-7	R024	C-4	SW1004	A-7
C428	I-6	D481	N-7	R031	C-4	SW1005	A-6
C432	L-7	D482	N-8	R107	E-6	SW1006	A-5
C433	L-8	D483	J-2	R141	F-6	T101	E-6
C434	M-8	D501	I-11	R231	B-9	T102	D-6
C436	K-6	D511	C-9	R306	I-8	T103	G-7
C451	K-10	D535	B-10	R311	D-8	T151	F-6
C452	K-9	D542	C-9	R312	E-8	T401	J-5
C453	I-9	D543	I-8	R320	G-9	T402	M-3
C456	K-8	D555	A-2	R325	G-10	TE7	M-1
C457	K-8	D601	A-11	R326	G-10	TP7	M-1
C458	I-8	F001	C-2	R328	H-10	TP50	L-1
C461	K-9	IC001	I-3	R330	G-9	TP51	L-1
C464	K-8	IC101	F-6	R332	F-10	VC531	C-13
C471	J-2	IC341	K-10	R342	K-11	VR101	I-7
C472	N-1	IC451	K-9	R344	L-10	VR451	I-9
C474	J-2	IC501	C-11	R401	H-5	X101	H-6
C476	J-3	IC511	C-11	R405	G-10	X102	C-7
C477	K-2	IC521	C-12	R407	I-8	X153	E-6
C478	M-8	IC601	B-6	R408	J-5	X301	G-8
C479	J-3	KBW	N-7	R409	H-4	X401	F-9
C481	N-7	KD	E-2	R413	H-7	X531	C-12
C482	M-9	KSW	H-8	R436	J-4		
C483	J-3	KX	L-7	R451	J-10		
C484	L-9	L104	C-7	R452	J-9		



MAIN BOARD - BOTTOM VIEW



MAIN BOARD - BOTTOM VIEW, GRIDTRACE LOCATION GUIDE			
C101	F-8	R406	G-6
C102	F-8	R414	F-5
C107	E-8	R421	E-6
C109	C-9	R422	E-6
C114	E-9	R423	E-6
C151	G-9	R424	E-6
C153	D-8	R426	E-6
C273	B-8	R462	H-6
C302	E-7	R513	C-4
C303	E-7	R514	C-4
C304	D-7	R515	C-4
C309	E-7	R516	B-3
C311	E-7	R517	B-2
C314	E-7	R521	B-1
C324	G-5	R522	B-1
C402	E-6	R523	B-1
C460	H-6	R524	B-1
C503	I-5	R525	A-1
C524	D-1	R526	A-1
C530	B-3	R527	B-2
C536	C-2	R532	C-2
C540	B-2	R535	A-4
C546	B-2	R537	B-5
C548	B-2	R538	B-5
R023	C-11	R539	B-5
R025	B-12	R541	E-1
R026	B-12	R542	D-1
R027	B-12	R543	D-2
R028	B-12	R544	D-2
R029	B-12	R545	B-2
R032	C-10	R546	D-2
R102	F-8	R547	D-2
R103	E-9	R552	A-2
R104	E-8	R553	A-1
R105	F-10	R556	A-2
R108	C-8	R559	A-3
R109	C-8	R560	A-2
R110	C-9	R563	A-3
R113	D-9	R564	A-3
R115	E-9	R565	F-4
R116	E-9	R568	A-3
R133	C-9	R570	E-7
R143	D-8	R571	A-3
R146	F-9	R582	B-3
R151	G-9	R583	C-5
R233	A-4	R594	A-3
R234	A-4	R595	A-2
R301	E-7	R596	A-3
R308	D-6	R597	B-2
R310	D-7	R598	A-2
R313	E-7	R602	B-9
R314	E-7	R603	B-9
R315	E-7	R604	B-9
R316	G-7	R1001	A-5
R317	G-7	R1002	A-6
R318	D-7	R1003	A-7
R319	D-7	R1004	A-8
R324	E-8	R1005	A-8
R402	E-6	R1006	A-10
R403	E-6	R1008	B-3
R404	E-6		

VOLTAGES TAKEN WITH SIGNAL

ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2H

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITTRACE[®]

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SEE IC501 PIN 39 PAGE 2E

SEE IC501 PIN 16 PAGE 2E

IF TO TUNER

TUNER NOT INCLUDED IN THIS COVERAGE

AGC TO TUNER

SEE IC501 PIN 23 PAGE 2E

△ TAKEN FROM COMMON TIE POINT ↓

SEE Q421 BASE PAGE 2E

SEE Q541 BASE PAGE 2E

SEE Q542 BASE PAGE 2E

SEE CRT PIN 9 PAGE 2D

HV RANGE 16.0KV TO 21.0KV

CRT ANODE

FOCUS

SCREEN

PARTS LIST continued

SEMICONDUCTORS continued					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q031	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SC536KE	-	NTE85	ECG85	SK3245
	2SC536-E-NP	405 019 1909	NTE85	ECG85	SK3245
	2SC536-F-NP	405 019 2708	NTE85	ECG85	SK3245
	2SC536-G-NP	405 019 3804	NTE85	ECG85	SK3245
	2SC1740-Q	405 011 7305	NTE85	ECG85	SK3122
	2SC1740-R	405 011 7404	NTE85	ECG85	SK3122
	2SC1740-S	405 011 7503	NTE85	ECG85	SK3122
	2SC1740S-Q	405 011 8401	NTE85	ECG85	SK3122
	2SC1740S-R	405 011 8500	NTE85	ECG85	SK3122
Q101	2SC1740S-S	405 011 8609	NTE85	ECG85	SK3122
	2SC1815-GR	405 012 2002	NTE85	ECG85	SK3124A
	2SC1815-O	405 012 2101	NTE85	ECG85	SK3124A
	2SC1815-Y	405 012 2309	NTE85	ECG85	SK3124A
	2SC945A-PA	405 020 7501	NTE85	ECG85	SK3124A
	2SC945A-QA	405 020 7709	NTE85	ECG85	SK3124A
	2SC945A-RA	405 020 7907	NTE85	ECG85	SK3124A
	2SA608KE	-	NTE290A	ECG290A	SK3114A
	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
Q117	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SC536KE	-	NTE85	ECG85	SK3245
Q303	2SC536-E-NP	405 019 1909	NTE85	ECG85	SK3245
	2SC536-F-NP	405 019 2708	NTE85	ECG85	SK3245
	2SC536-G-NP	405 019 3804	NTE85	ECG85	SK3245
	2SC1740-Q	405 011 7305	NTE85	ECG85	SK3122
	2SC1740-R	405 011 7404	NTE85	ECG85	SK3122
	2SC1740-S	405 011 7503	NTE85	ECG85	SK3122
	2SC1740S-Q	405 011 8401	NTE85	ECG85	SK3122
	2SC1740S-R	405 011 8500	NTE85	ECG85	SK3122
	2SC1740S-S	405 011 8609	NTE85	ECG85	SK3122
	2SC1815-GR	405 012 2002	NTE85	ECG85	SK3124A

SEMICONDUCTORS continued					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q330	2SC536-F-NP	405 019 2708	NTE85	ECG85	SK3245
	2SC536-G-NP	405 019 3804	NTE85	ECG85	SK3245
	2SC1740-Q	405 011 7305	NTE85	ECG85	SK3122
	2SC1740-R	405 011 7404	NTE85	ECG85	SK3122
	2SC1740-S	405 011 7503	NTE85	ECG85	SK3122
	2SC1740S-Q	405 011 8401	NTE85	ECG85	SK3122
	2SC1740S-R	405 011 8500	NTE85	ECG85	SK3122
	2SC1740S-S	405 011 8609	NTE85	ECG85	SK3122
	2SC1815-GR	405 012 2002	NTE85	ECG85	SK3124A
	2SC1815-O	405 012 2101	NTE85	ECG85	SK3124A
	2SC1815-Y	405 012 2309	NTE85	ECG85	SK3124A
	2SC945A-PA	405 020 7501	NTE85	ECG85	SK3124A
	2SC945A-QA	405 020 7709	NTE85	ECG85	SK3124A
	2SC945A-RA	405 020 7907	NTE85	ECG85	SK3124A
	2SA608KE	-	NTE290A	ECG290A	SK3114A
	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
Q341	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SD400E	-	NTE382	ECG382	SK3849
	2SD400-E-MP	405 023 5009	NTE382	ECG382	SK3849
	2SD400-F-MP	405 023 5306	NTE382	ECG382	SK3849
	2SC2228M	405 040 6102	NTE399	ECG399	SK3866A
# Q402	2SC2229-M(SAN-1)	406 000 5302	NTE399	ECG399	SK3244
	2SD1650	-	NTE2302	ECG2302	SK9422
	2SD1650-CTV-YB	405 022 6700	NTE2302	ECG2302	SK9422
	2SA608KE	-	NTE290A	ECG290A	SK3114A
	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
Q421, 22	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SA608KE	-	NTE290A	ECG290A	SK3114A
	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
Q535	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SA608KE	-	NTE290A	ECG290A	SK3114A
	2SA608-E-CTV-NP	405 004 4205	NTE290A	ECG290A	SK3114A
	2SA608-F-CTV-NP	405 004 4809	NTE290A	ECG290A	SK3114A
#	2SA1015-O(SAN)	405 001 7407	NTE290A	ECG290A	SK9132
	2SA1015-Y(SAN)	405 001 7605	NTE290A	ECG290A	SK9132
	2SA1015-GR(SAN)	406 000 6804	NTE290A	ECG290A	SK9132
	2SA564A-Q(CU)	405 004 3109	NTE290A	ECG290A	SK3932
	2SA564A-R(CU)	405 004 3208	NTE290A	ECG290A	SK3932
	2SA933-Q	405 006 1103	NTE290A	ECG290A	SK9132
	2SA933-R	406 006 1202	NTE290A	ECG290A	SK9132
	2SA933S-Q	405 006 1707	NTE290A	ECG290A	SK9132
	2SA933S-R	405 006 1806	NTE290A	ECG290A	SK9132
	2SA608KE	-	NTE290A	ECG290A	SK3114A

For SAFETY use only equivalent replacement part.

SANYO

MODEL AVM-1905 (CHASSIS G6A-19050)

PARTS LIST continued

MISCELLANEOUS

Item No.	Description	Mfr. Part No.	Notes
# A101	Tuner (1)	645 007 0938	UHF/VHF
# A101B	Antenna Block	645 002 7864	-
A1001	Receiver	645 007 1546	Remote
# F001	Fuse	423 007 1601	4Amp, 125V, Fast Acting
	Fuse	423 007 1809	4Amp, 125V, Fast Acting
	Fuse	423 018 8101	4Amp, 125V, Fast Acting
# K701	Socket	610 010 4181	CRT
# Q901	CRT	413 007 6201	A48AAB37X
# RL001	Relay	610 009 5540	Power
	Relay	610 009 5649	Power
	Relay	610 215 6355	Power
	Relay	645 000 4155	Power
SP901	Speaker	610 055 6614	3" X 3", 8 Ohms, 2W
SW701	Switch	610 011 4227	Service/Normal
SW1001	Switch	645 010 7658	Menu
SW1002	Switch	645 010 7658	Channel Down
SW1003	Switch	645 010 7658	Channel Up
SW1004	Switch	645 010 7658	Volume Down
SW1005	Switch	645 010 7658	Volume Up
SW1006	Switch	645 010 7658	Power
# W001	Line Cord	610 222 9660	AC, Polarized
# W902	Connector	610 240 8775	Ground
X101	Filter	422 000 9409	SAW
X102	Trap	610 015 3059	4.5MHz
	Trap	610 015 3066	4.5MHz
X153	Filter	610 015 2946	4.5MHz
X301	Crystal	610 012 0655	3.58MHz
	Crystal	610 204 4195	3.58MHz
	Crystal	610 245 9746	3.58MHz
X401	Crystal	610 012 2970	503.5kHz
X531	Crystal	645 000 5299	12MHz
	Fuse Clip	610 012 4356	For F001 (2 Used)
	Fuse Holder	645 006 4760	For F001 (2 Used)
	PC Board (1)	610 253 2210	CRT
	PC Board (1)	610 254 1168	Main
	PC Board (1)	610 254 0345	Remote Control
	PC Board (1)	610 254 0352	Remote Control
	Transmitter	645 006 8515	Remote
	Transmitter	645 006 8614	Remote
	Wedge	610 117 0154	Yoke Positioning (3 Used)
	Wedge	610 117 7924	Yoke Positioning (3 Used)

For SAFETY use only equivalent replacement part.
(1) Contact PTS Electronics Corporation for replacement; order by manufacturer's part number.

Important Parts Information

- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

Obtaining Parts

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

800-428-7267

Or consult the Sams *Annual Index* for the address of the original equipment manufacturer.

Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors. Consult the Sams *Annual Index* for their current address.

- Custom Components Corporation (Chek-A-Color)
- NTE Electronics, Inc. (NTE)
- Philips ECG Company (ECG)
- PTS Electronics Corporation (PTS)
- Sencore, Inc.
- Thomson Consumer Electronics, Inc. (SK, TCE)

CAPACITORS & ELECTROLYTICS

Item No.	Rating	Mfr. Part No.
# C001	.1 20% 125VAC	404 047 3503
	.1 20% 275VAC	404 066 1603
# C004, 05	.001 10% 500V	403 075 7101
# C021	.001 10% 500V	403 075 7101
C108	56pF 5% 50V N220	403 028 2009
# C432	.0071 3% 1.5kV	404 063 7301
# C433	680pF 10% 3kV	403 165 6700
	680pF 10% 3kV	403 185 9408
# C434	.0047 10% 500V	403 076 4000
# C436	.33 5% 200V	403 082 9808
# C708	.001 +100% -0% 2kV	403 077 2708
	.001 +100% -0% 2kV	403 175 3409
VC531	40pF Trimmer	610 003 0381

For SAFETY use only equivalent replacement part.

CABINET PARTS

Item	Mfr. Part No.
Badge	610 236 9267
Buttons	610 253 7567
Cabinet Front	610 254 2721
Cabinet Rear	610 253 8656
Cabinet Rear	610 255 1327

TRANSMITTER

Battery Door	610 254 0550
Battery Door	610 254 0581

SERVICE INFORMATION

POWER FAILURE DETECTOR

This receiver uses a power failure detector, pin 43 of IC501, which checks for an abnormal failure of power supply circuits. If an unexpected failure is caused by any one of three conditions, the receiver will shut itself off in 1.5 seconds to prevent damage. The three conditions are:

1. Failure within the power supply.
2. A short circuit on the load side of the power supply.
3. Stoppage of horizontal oscillation caused by shutdown circuits.

The power will shut itself off within 3.0 seconds if any of these conditions remain uncorrected. To check if the receiver is turned off by the power failure detector, press the power button and check the voltage at pin 3 of IC341. It should measure 9.0V normally. If this voltage is low, the receiver will shut itself off within 3.0 seconds.

SANYO

MODEL AVM-1905 (CHASSIS 66A-19050)

PARTS LIST

SEMICONDUCTORS					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
# D002 Thru # D005	EM2B 1S1887A GP15G ED0439	407 005 7605 407 013 3200 408 008 8606 -	NTE125 NTE552 NTE125 -	ECG125 ECG552 ECG125 -	SK3081 SK9000 SK3081 -
# D021	ERA15-02 S5277B MPG06D 1N4002ID	407 005 8602 407 011 3004 407 088 6502 408 009 9404	NTE552 NTE552 NTE552 NTE116	ECG552 ECG552 ECG552 ECG116	SK9000 SK9000 SK9000 SK3311
D022	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
D023	RD5.1EB2 RD5.1EB3 UZ-5.1BCB UZ-5.1BCC	407 056 8002 407 056 8200 407 151 8402 407 163 8209	NTE5010A NTE5010A - -	ECG5010A ECG5010A - -	SK5A1 SK5A1 - -
D031	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
D303	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
D306	1S1553 1S2076A 1S2471 1N4148	407 013 1008 407 013 4306 407 013 6508 408 008 2406	NTE177 NTE519 NTE519 NTE519	ECG177 ECG519 ECG519 ECG519	SK9091 SK3100 SK3100 SK3100
# D411, 12 D436	HZ11B2L ES1 RMPG06G ERA18-04	407 158 1307 407 007 6606 407 124 5506 407 124 6404	NTE5020A NTE552 NTE552 NTE552	ECG5020A ECG552 ECG552 ECG552	SK11A SK9000 SK9000 SK9000
D451	ERA15-02 S5277B MPG06D 1N4002ID	407 005 8602 407 011 3004 407 088 6502 408 009 9404	NTE552 NTE552 NTE552 NTE116	ECG552 ECG552 ECG552 ECG116	SK9000 SK9000 SK9000 SK3311
D471	ES1 ERA18-04 RMPG06G	407 007 6606 407 124 5506 407 007 6404	NTE552 NTE552 NTE552	ECG552 ECG552 ECG552	SK9000 SK9000 SK9000
D474	EU2	407 007 7603	NTE552	ECG552	SK9000
D476	EU2	407 007 7603	NTE552	ECG552	SK9000
D478	ERA15-02 S5277B MPG06D 1N4002ID	407 005 8602 407 011 3004 407 088 6502 408 009 9404	NTE552 NTE552 NTE552 NTE116	ECG552 ECG552 ECG552 ECG116	SK9000 SK9000 SK9000 SK3311
D481	EU2	408 007 7603	NTE552	ECG552	SK9000
D482	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
D483	TVR1G	407 011 4407	NTE552	ECG552	SK9000
D501	RD5.1EB2	407 056 8002	NTE5010A	ECG5010A	SK5A1
# For SAFETY use only equivalent replacement part.					

SEMICONDUCTORS continued					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
D511	RD5.1EB3 UZ-5.1BCB UZ-5.1BCC	407 056 8200 407 151 8402 407 163 8209	NTE5010A - -	ECG5010A - -	SK5A1 - -
	DS442X 1S1555	408 005 4505 407 013 1206	NTE519 NTE177	ECG519 ECG177	SK3100 SK9091
	1S2473 1N4148	407 013 7109 408 008 2406	NTE177 NTE519	ECG177 ECG519	SK9091 SK3100
	1S2076	407 013 4207	NTE177	ECG177	SK9091
	RD4.3EB2 UZ-4.3BCB	407 056 4707 407 164 9601	NTE5008A -	ECG5008A -	SK4A3 -
D531	RD5.1EB2	407 056 8002	NTE5010A	ECG5010A	SK5A1
D535	RD5.1EB3 UZ-5.1BCB UZ-5.1BCC	407 056 8200 407 151 8402 407 163 8209	NTE5010A - -	ECG5010A - -	SK5A1 - -
D542	RD13EB3 UZ-13BCC RD15EB1 UZ-15BCA	407 054 4808 407 163 8001 407 054 5706 407 163 8100	NTE5022A - - -	ECG5022A - - -	SK13A - - -
D543, 55	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
D601	DS442X 1S1555 1S2076 1S2473 1N4148	407 005 4505 407 013 1206 407 013 4207 407 013 7109 408 008 2406	NTE519 NTE177 NTE177 NTE177 NTE519	ECG519 ECG177 ECG177 ECG177 ECG519	SK3100 SK9091 SK9091 SK9091 SK3100
# IC001	STR30135	409 047 8602	NTE1778	ECG1778	SK9871
# IC101	LA7673	409 274 3302	-	-	-
IC341	L78M09 L78M09-RA	409 271 2407 409 026 9101	NTE1902 NTE1902	ECG1902 ECG1902	SK3962 SK3962
# IC451	LA7837	409 173 2703	NTE7104	ECG7104	-
IC501	LC864120B-5731	410 213 7305	-	-	-
IC511	24LC01B ST24C01B1 24LC01B/P XLS24C01AP	- 409 270 0008 409 321 0902 409 321 7307	- - - -	- - - -	- - - -
IC521	MN1381-Q	409 301 2803	-	-	-
IC601	AN5265	409 073 1509	NTE1789	ECG1789	SK9876
Q021, 22	2SC536KE 2SC536-E-NP 2SC536-F-NP 2SC536-G-NP	- 405 019 1909 405 019 2708 405 019 3804	NTE85 NTE85 NTE85 NTE85	ECG85 ECG85 ECG85 ECG85	SK3245 SK3245 SK3245 SK3245
Q023	2SC1740-Q	405 011 7305	NTE85	ECG85	SK3122
	2SC1740-R	405 011 7404	NTE85	ECG85	SK3122
	2SC1740-S	405 011 7503	NTE85	ECG85	SK3122
	2SC1740S-Q	405 011 8401	NTE85	ECG85	SK3122
	2SC1740S-R	405 011 8500	NTE85	ECG85	SK3122
	2SC1740S-S	405 011 8609	NTE85	ECG85	SK3122
	2SC1815-GR	405 012 2002	NTE85	ECG85	SK3124A
	2SC1815-O	405 012 2101	NTE85	ECG85	SK3124A
	2SC1815-Y	405 012 2309	NTE85	ECG85	SK3124A
	2SC945A-PA	405 020 7501	NTE85	ECG85	SK3124A
	2SC945A-QA	405 020 7709	NTE85	ECG85	SK3124A
	2SC945A-RA	405 020 7907	NTE85	ECG85	SK3124A
	2SA608KE	-	NTE290A	ECG290A	SK3114A
# For SAFETY use only equivalent replacement part.					

PARTS LIST continued

SEMICONDUCTORS continued					
(Select the replacement that gives the best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q541, 42	2SC536KE	-	NTE85	ECG85	SK3245
	2SC536-E-NP	405 019 1909	NTE85	ECG85	SK3245
	2SC536-F-NP	405 019 2708	NTE85	ECG85	SK3245
	2SC536-G-NP	405 019 3804	NTE85	ECG85	SK3245
	2SC1740-Q	405 011 7305	NTE85	ECG85	SK3122
	2SC1740-R	405 011 7404	NTE85	ECG85	SK3122
	2SC1740-S	405 011 7503	NTE85	ECG85	SK3122
	2SC1740S-Q	405 011 8401	NTE85	ECG85	SK3122
	2SC1740S-R	405 011 8500	NTE85	ECG85	SK3122
	2SC1740S-S	405 011 8609	NTE85	ECG85	SK3122
	2SC1815-GR	405 012 2002	NTE85	ECG85	SK3124A
	2SC1815-O	405 012 2101	NTE85	ECG85	SK3124A
	2SC1815-Y	405 012 2309	NTE85	ECG85	SK3124A
	2SC945A-PA	405 020 7501	NTE85	ECG85	SK3124A
	2SC945A-QA	405 020 7709	NTE85	ECG85	SK3124A
	2SC945A-RA	405 020 7907	NTE85	ECG85	SK3124A
	2SC2621E	-	NTE157	ECG157	SK3747
	2SC2621-D-RA	405 041 6507	NTE157	ECG157	SK3747
Q701, 03, 05	2SC2621-E-RA	405 041 6705	NTE157	ECG157	SK3747
	2SC2621-C-RA	405 066 4304	NTE157	ECG157	SK3747
	2SC2688(1)-K	405 066 9903	NTE157	ECG157	SK3747
	2SC2688(1)-L	405 067 0008	NTE157	ECG157	SK3747
	2SC2688(1)-M	405 067 0107	NTE157	ECG157	SK3747
	2SC3620(LB-SAN-1)	406 000 3605	NTE157	ECG157	SK3747

TEST EQUIPMENT			
Test equipment listed by participating manufacturer illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.			
Equipment	Sencore No.	Equipment	Sencore No.
Oscilloscope	SC3100	Isolation Transformer	PR57
Generators		Capacitance Analyzer	LC101, LC102
RGB	CM2000	CRT Analyzer	CR70
Multiburst Signal	VG91	AC Leakage Tester	PR57
Color Bar	VG91	Inductance Analyzer	LC101, LC102
TV Stereo	VG91	Flyback Yoke Tester	TVA92
Digital VOM	SC3100	TV Stereo Power Monitor	SR68, PA81
Frequency Meter	SC3100	Field Strength Meter	SL750
Hi-Voltage Probe	HP200	Transistor Tester	TF46
Accessory Probes	TP212	Video Analyzer	VG91, TVA92

COILS & TRANSFORMERS		
Item No.	Function/Rating	Mfr. Part No.
L104	12μH	645 008 2733
L301	10μH	645 001 4567
L306	56μH	645 008 0234
L401	Filter	610 032 5852
	Filter	610 032 5869
L403, 04	Ferrite Bead	610 031 9998
L463	Filter	610 032 4404
	Filter	610 032 4381
	Filter	645 008 5642
L532, 35	5.6μH	645 008 2894
L537	5.6μH	645 008 2894
L547	-	-
L555	5.6μH	645 008 2894
# L901	Degaussing	645 002 9097
	Degaussing	645 002 9103
# L902	Yoke Horiz 3.2mH Vert 30.3mH	610 238 2846
	Yoke	610 238 2853
# LF001	Line Filter	610 031 5938
	Line Filter	610 031 6089
	Line Filter	610 031 6096
	Line Filter	610 031 6119
	Line Filter	610 031 6126
	Line Filter	610 223 1212
T101	OSC	645 000 5206
T102	AFT Centering	610 037 6564
T103	IF	610 205 6822
T151	Sound IF	610 037 7615
T401	Horizontal Drive	610 000 7901
	Horizontal Drive	610 000 7918
# T402 (1)	Horizontal Output	645 000 1495
	Horizontal Output	645 004 7442
# For SAFETY use only equivalent replacement part.		
(1) Focus and screen controls are part of T402.		

CONTROLS & RESISTORS			
Item No.	Function/Rating	Mfr. Part No.	NTE Part No.
# PS001	7.7 Cold PTC	408 000 3203	-
	7.7 Cold PTC	408 003 6409	-
# R001	1 10% 6W Wirewound	402 055 3201	-
	1 10% 6W Wirewound	402 055 3300	-
# R006	47 5% 1/2W Nonflammable	401 010 2600	HW047
# R007	5.6 5% 2W	401 068 6209	2W5D6
# R008	120 5% 15W Wirewound	402 057 1304	-
# R021	820 10% 6W Wirewound	402 057 4107	-
	820 10% 6W Wirewound	402 057 4206	-
# R022	270 5% 2W	401 067 0000	2W127
# R024	330 5% 1W	401 061 2505	1W133
# R344	47 5% 1W	401 062 0302	1W047
# R401	6800 5% 2W	401 069 3702	2W268
# R405	3300 5% 1W	401 061 3502	1W233
# R409	10K 5% 2W	401 064 9907	2W310
# R413	3300 1% 1/6W	401 053 2605	-
# R436	330 5% 2W	401 067 5302	2W133
# R471	68 5% 1/2W Nonflammable	401 011 1206	HW068
# R473	2.7 5% 2W Wirewound	402 066 3705	-
# R474	2.2 5% 1W	401 059 9608	1W2D2
# R476	1 5% 1/2W Nonflammable	401 006 7701	HW1D0
# R481	2.2 5% 1W	401 059 9608	1W2D2
# R482	18 5% 1W	401 059 5907	1W018
# R483	10 5% 1/4W Nonflammable	401 012 3506	QW010
# R485	1690 1% 1/6W	401 224 5602	-
# R486	10K 1% 1/6W	401 052 6802	-
# R495	1.8 5% 2W	401 064 5701	2W1D8
# R501	8.2 5% 1/4W Nonflammable	401 022 9505	QW8D2
# R502	120 5% 1W	401 058 8107	1W112
R555	6800 1% 1/6W	401 053 4708	-
R557	15K 1% 1/6W	401 052 9308	-
# R711, 12, 13	12K 5% 1W	401 058 9807	1W312
VR101	10K RF AGC	645 001 9319	-
	10K RF AGC	645 006 5095	-
VR451	50K Vertical Size	645 001 9364	-
	50K Vertical Size	610 016 5217	-
VR701	10K Red Bias	610 019 2331	-
VR702	10K Green Bias	610 019 2331	-
VR703	10K Blue Bias	610 019 2331	-
VR704	200 Red Drive	610 204 5444	-
VR705	200 Blue Drive	610 204 5444	-
# For SAFETY use only equivalent replacement part.			